WHAT IS CLAIMED IS:

1. In an electrical device having a variable output, a feedback loop for adjusting the variable output, the feedback loop comprising:

at least one adjustable zero element.

2. The feedback loop of claim 1 wherein the adjustable zero element is in a forward path of the feedback loop.

3. The feedback loop of claim 1 having a characteristic bandwidth, the feedback loop further comprising:

at least one adjustable pole element;

whereby the at least one adjustable zero element and at least one adjustable pole element are operable to change the characteristic bandwidth of the feedback loop.

4. The feedback loop of claim 3 wherein the at least one adjustable pole element is in a forward path of the feedback loop.

5. The feedback loop of claim 4 wherein the at least one adjustable zero element is in the forward path of the feedback loop and further comprising:

a mixer in the forward path of the feedback loop; and

a mixer in the reverse path of the feedback loop.

6. The feedback loop of claim 5 further comprising:

a power amplifier in the forward path so that the feedback loop can be used as part of a radio transmitter.

7. The feedback loop of claim 3 wherein the feedback loop is a cartesian feedback loop.

8. The feedback loop of claim 3 wherein the adjustable pole element is a circuit comprising a plurality of elements having impedance that can be selectively coupled to the other elements of the circuit.

9. The feedback loop of claim 3 wherein the at least one adjustable pole element and the at least one adjustable zero element are substantially contained within an integrated circuit.

10. The feedback loop of claim 3 wherein the adjustable pole element is in the forward path of the feedback loop.

11. The feedback loop of claim 3 wherein the at least one adjustable pole element comprises two adjustable pole elements.

12. The feedback loop of claim 1 in which the adjustable zero element comprises:

an adjustable first amplifier that amplifies an input signal to create a first amplified signal;

a second amplifier that amplifies the input signal to create a second amplified signal;

a low pass filter that operates on the first amplified signal to create a filtered amplified signal; and

a summer to add the filtered amplified signal and the second amplified signal to create an output signal.

13. In a feedback loop having an loop and a closed loop frequency response, the loop frequency response having at least one pole and the closed loop frequency response being characterized by a closed loop bandwidth, a method comprising the steps of:

moving a pole in the loop frequency response yielding a change in the closed loop frequency response.

14. The method of claim 13 wherein the step of moving a pole is accomplished by switching among a plurality of elements having different impedances.

15. The method of claim 13 further comprising the step of:

moving a zero in the loop frequency response yielding a change in the closed loop frequency response.

16. The method of claim 15 wherein the step of moving a zero is accomplished by adjusting an amplifier with an adjustable gain.

17. The method of claim 13 wherein the feedback loop contains a power amplifier for amplifying a signal so that it can be transmitted over a radio channel.

18. An integrated circuit implementing substantially all the components of a feedback loop with adjustable frequency response, the integrated circuit comprising:

at least one adjustable pole element for implementing an adjustable pole in the forward path of the feedback loop.

19. The integrated circuit of claim 18 further comprising at least one adjustable zero element for implementing an adjustable zero in the forward path of the feedback loop.

20. A feedback loop having a forward path and a feedback path comprising:

at least one adjustable pole element in the forward path of the feedback loop;

at least one adjustable zero element in the forward path of the feedback loop;

a power amplifier in the forward path of the feedback loop;

a first mixer in the forward path of the feedback loop; and

a second mixer in the feedback path of the feedback loop.